



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**INFORMATION DISCLOSURE STATEMENT**

APPLICANTS: Christoph BECKER et al CONFIRMATION NO.: 1085

SERIAL NO.: 10/693,586 GROUP ART UNIT: 3736

FILED: October 24, 2003

TITLE: METHOD AND DATA PROCESSING DEVICE TO SUPPORT  
DIAGNOSIS AND/OR THERAPY OF A PATHOLOGICAL  
CHANGE OF A BLOOD VESSEL"

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

SIR:

In accordance with the provisions of 37 C.F.R. § 1.56, Applicants request that citation and examination of the following documents be made during the course of examination of the above-referenced application for United States Letters Patent.

AA United States Patent No. 4,945,478

AL PCT Application WO 01/93745

AT "Volumetric Coronary Plaque Composition using Intravascular Ultrasound: Three-Dimensional Segmentation and Spectral Analysis," Klingensmith et al, Computer in Cardiology, Volume 29 (2002), pages 113-116.

AU "Quantification of Coronary Artery Calcium Using Ultrafast Computed Tomography," Agastaston et al, J. Amer. Coll. of Cardiology, Volume 16 (1990), pages 827-832.

AV "Non-Invasive In Vivo Human Coronary Artery Lumen and Wall-Imaging Using Black-Blood Magnetic Resonance Imaging," Fayad et al, Circulation, Volume 102 (2000) pages 506-510.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.R./

AW "Cardiac Imaging by Means of Electrocardiographically Gated Multisection Spiral CT: Initial Experience," Ohnesorge et al, Radiology, Volume 217 (2002), pages 564-571.

AX "Current Development of Cardiac Imaging With Multidetector-Row CT," Becker et al, Europ. J. of Radiology, Volume 36 (2000) pages 97-103

AY "Non-Invasive Detection and Evaluation of Atherosclerotic Coronary Plaques With Multi-slice Computed Tomography," Schröder et al, J. Amer. Coll. Of Cardiology, Volume 37 (2001) pages 1430-1435.

**EXPLANATION OF RELEVANCE**

References AA, AL, AT and AY were cited by the German Patent and Trademark Office during examination of the counterpart German application.

References AU through AY were identified and discussed in the present specification, and Applicants stand by the statements in the specification concerning the teachings of those references.

Copies of each of the above references together with Form 1449 are submitted herewith.

Since all of these references are in English, no further commentary concerning their teachings is necessary.

As of the date of mailing of this Information Disclosure Statement, a first Office Action on the merits has not been received in connection with this application. This Information Disclosure Statement is therefore in compliance with 37 C.F.R. §1.97(b)(3), and no fee is necessary.

All claims of the application are submitted to be patentable over the teachings of the above references, taken singly or in combination. Early consideration of the application is therefore respectfully requested.

Submitted by,

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**CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on March 15, 2004.

*Steven H. Noll*

STEVEN H. NOLL

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 PATENT & TRADEMARK OFFICE

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Sheet 1 of 1

| Form PTO-1449<br><br>INFORMATION DISCLOSURE CITATION<br>IN AN APPLICATION<br>(use several sheets if necessary)  |    |   |          | Docket No.<br>P03,0399              | Serial No.<br>10/693,586 |          |                            |
|---|----|---|----------|-------------------------------------|--------------------------|----------|----------------------------|
|   |    |   |          | Applicant<br>Christoph Becker et al |                          |          |                            |
|   |    |   |          | Filing Date<br>October 24, 2003     | Group Art Unit<br>3736   |          |                            |
| U.S. PATENT DOCUMENTS   |    |   |          |                                     |                          |          |                            |
| Examiner's Initials   |    | Document Number   | Date     | Name                                | Class                    | Subclass | Filing Date If appropriate |
| /B.R./  | AA | 4,945,478   | 07/31/90 | Merickel et al.                     |                          |          |                            |
|   | AB |   |          |                                     |                          |          |                            |
|   | AC |   |          |                                     |                          |          |                            |
|   | AD |   |          |                                     |                          |          |                            |
|   | AE |   |          |                                     |                          |          |                            |
|   | AF |   |          |                                     |                          |          |                            |
|   | AG |   |          |                                     |                          |          |                            |
|   | AH |   |          |                                     |                          |          |                            |
| FOREIGN PATENT DOCUMENTS  |    |   |          |                                     |                          |          |                            |
|   |    | Document Number   | Date     | Country                             | Class                    | Subclass | Translation<br>Yes      No |
| /B.R./  | AL | WO 01/93745   | 12/13/01 | PCT                                 |                          |          |                            |
|   | AM |   |          |                                     |                          |          |                            |
|   | AN |   |          |                                     |                          |          |                            |
|   | AO |   |          |                                     |                          |          |                            |
|   | AP |   |          |                                     |                          |          |                            |
|   | AQ |   |          |                                     |                          |          |                            |
| OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)  |    |   |          |                                     |                          |          |                            |
| /B.R./  | AT | "Volumetric Coronary Plaque Composition using Intravascular Ultrasound: Three-Dimensional Segmentation and Spectral Analysis," Klingensmith et al, Computer in Cardiology, Volume 29 (2002), pages 113-116. |          |                                     |                          |          |                            |
| /B.R./  | AU | "Quantification of Coronary Artery Calcium Using Ultrafast Computed Tomography," Agatston et al, J. Amer. Coll. of Cardiology, Volume 16 (1990), pages 827-832.   |          |                                     |                          |          |                            |
| /B.R./  | AV | "Non-Invasive In Vivo Human Coronary Artery Lumen and Wall-Imaging Using Black-Blood Magnetic Resonance Imaging," Fayad et al, Circulation, Volume 102 (2000) pages 506-510.                                |          |                                     |                          |          |                            |
| /B.R./  | AW | "Cardiac Imaging by Means of Electrocardiographically Gated Multisection Spiral CT: Initial Experience," Ohnesorge et al, Radiology, Volume 217 (2002), pages 564-571.                                      |          |                                     |                          |          |                            |
| /B.R./  | AX | "Current Development of Cardiac Imaging With Multidetector-Row CT," Becker et al, Europ. J. of Radiology, Volume 36 (2000) pages 97-103   |          |                                     |                          |          |                            |
| /B.R./  | AY | "Non-Invasive Detection and Evaluation of Atherosclerotic Coronary Plaques With Multi-slice Computed Tomography," Schröder et al, J. Amer. Coll. Of Cardiology, Volume 37 (2001) pages 1430-1435.           |          |                                     |                          |          |                            |
| Examiner<br>/Baisakhi Roy/  |    | Date Considered<br>05/26/2009   |          |                                     |                          |          |                            |
| *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |   |          |                                     |                          |          |                            |